LAKEBED

KANSAS RANGE SITE DESCRIPTION

1. Location of Site:

Land Resource Areas 72, 73, 77, and 78
Central High Table Land,
Rolling Plains and Breaks,
Southern High Plains, and
Central Rolling Red Plains

2. Climate:

See climate for LRA's 72, 73, 77, and 78
(Filed in the front of Section II-E)

3. Topography:

This site occurs on level to nearly level upland depressions.

4. Soils and Hydrological Characteristics:

a. The site consists of deep, poorly drained, clayey soils. Locally, the depressions are called potholes or playa lakes.

b. Some of the soils which characterize this site are

Ness
Randall
Lofton

c. This site occurs in upland depressions that have very slow permeability and high available water capacity. Because this site is located on the floor of upland depressions, runoff is ponded in many places. The length of time that these areas will hold water depends on the size of the drainage area, the frequency of rainfall, and the depth of the depression. Wind erosion can be a hazard on this site if water drowns out the vegetation and then drys up leaving bare soil.

5. Climax Vegetation:

a. The vegetation on this site is highly variable due to the fluctuation of ponding from one location to the next. On areas where water is seldom ponded, mid and short grasses dominate the site. Western wheatgrass, vinemesquite, blue grama, and buffalograss are the major species on the site. Combined they make up 75 to 85 percent of the total annual production. Prairie cordgrass is common on sites that receive frequent water of shallow depths. As ponding increases, the amount of perennial grasses decreases and water-tolerant forbs, sedges, and annuals increase. Some of these areas may pond water long enough to drown out the vegetation leaving bare soil during dry cycles or sparse annual vegetation. A number of different forbs can be found on this site.

b. Guidelines for Determining Range Condition:

(Percentage of total production by weight)

Grasses and Grasslike - 85 Percent		Forbs - 15 Percent		Shrubs and Cacti
	prairie cordgrass	5	fog fruit	None
65	vinemesquite western wheatgrass		arrowhead burragweed	
	blue grama		curled dock	
20	buffalograss tall dropseed	10	Dakota verbena heath aster	
	Japanese brome		lambsquarters	
	little barley		Pennsylvania smartweed	
T	sedges		Texas croton	
	stinkgrass		western ragweed	
	tumblegrass			

Invaders common to this site are buffalobur, cocklebur, common sunflower, giant ragweed, kochia, pigweed, russianthistle, and sandbur.

6. Management Implications:

The frequency and duration of ponding on this site influence the level of management that can practically be applied.

When degeneration of the vegetative composition results from overgrazing by cattle, prairie cordgrass, western wheatgrass, vinemesquite, and blue grama decrease. With reduced competition annual grasses and weeds increase.

Continued regression of the plant community can lead to elimination of the preferred species.

Under proper grazing use this site can be maintained in a very productive condition, if ponding is infrequent or lasts only a short time.

7. Wildlife Considerations:

During wet seasons, migrating waterfowl use the ponded areas for both nesting and feeding. Native birds and other animals also use these areas for watering holes. Since most of these areas are relatively small and water is unreliable, most species of wildlife do not depend on this site, but use it when the opportunity is present.

Management that maintains nesting and escape cover on or adjacent to the site enhances the suitability of this site for wildlife.

8. Other Uses and Values:

Many of these sites are used for irrigation tailwater recovery pits. Some are deepened for fishing ponds. Others are drained and used for cultivation.

9. Herbage Production Guidelines:

The following guidelines are based on available clipping data when this site is in excellent condition. Vigor of principal forage species, as well as growing conditions, influence annual herbage production.

	Total Air Dry Herbage	
Growing Conditions	Pounds/Acre	Kilograms/Hectare
Favorable	2,500-3,500	2,800-3,900
Normal	1,700-2,500	1,900-2,800
Unfavorable	900-1,700	1,000-1,900

10. Guide to Initial Stocking Rates:

Range Condition	Percent Climax Vegetation	Acres/AU Yearlong	AU Months Per Acre	Hectares/AU Yearlong	AUM's per Hectare
Excellent	76-100	18-22	.6	7-9	1.5
Good	51-75	22-27	.5	9-11	1.25
Fair	26-50	27-32	.4	11-14	1.0
Poor	0-25	35+	.3	14+	0.75

These guidelines are considered safe initial stocking rates from which a sound management program can be built. Grazing only during the dormant season or use of a specialized grazing program will usually allow a substantial increase in the stocking rates shown.

This site is not normally used for hay production.

11. Relative Preference of Plant Species:

Preferences of plant species by classes of livestock and uses by wildlife will vary from year to year and season to season. The table below is what might be expected under average climatic conditions and good management.

Forage Preferences

H = High
M = Medium
L = Low

Wildlife Preferred Uses

C = Cover
F = Food
N = Nesting

Plant Species	Animal Species		
	Cattle	Ducks	Pheasants
blue grama	H	---	---
buffalograss	H	---	---
burragweed	L	---	F
common sunflower	L	C,F	C,F
curled dock	L	C,F	C,F
fog fruit	M	F	F
heath aster	M	---	F
Japanese brome	M 1/	F 1/	F 1/
kochia	H	F	F
little barley	M	F	F
Pennsylvania smartweed	L	C,F	C,F
prairie cordgrass	H	C,N	C,N
sedges	M	F	C
tall dropseed	M	C,N	C,N
Texas croton	L	F	F
vinemesquite	H 2/	F	F
western ragweed	M	F	F
western wheatgrass	H	C,F	C,N

1/ Has a high preference during lush growth periods

2/ Preferred during first half of growing season

Reference:

Anderson, Kling L. and Clenton E. Owensby. 1969 Common Names of a Selected List of Plants. Kansas State University Tech. Bul. 117.